

What is claimed is:

1. A method for efficient processing of a document encoded in a markup language, the method comprising the step of:

5 communicating an array-based data model representing the document to an application process through a bus of a printed circuit board.

2. The method of claim 1, wherein said data model represents a document encoded in mXML.

3. The method of claim 1, wherein said data model represents a document encoded in XML.

4. A method for efficient processing of a document encoded in a markup language, the method comprising the steps of:

receiving a document intended for delivery to a target;

processing the document using a special purpose processor; and

passing the processed document to the target for further processing by a general purpose processor.

5. The method of claim 4, wherein said processing step comprises parsing the document.

6. The method of claim 4, wherein said processing step comprises performing a transformation on the document.

7. The method of claim 4, wherein said processing step comprises creating an array-based model of the document.

8. The method of claim 4, wherein said processing step comprises creating a tree-based model of the document.

9. The method of claim 4, wherein said special purpose processor comprises an integrated circuit configured for parsing the document.

10. The method of claim 4, wherein said special purpose processor comprises a supplemental general purpose processor for executing computer readable code for parsing the document, said supplemental general purpose processor being distinct from a primary general purpose processor.

11. The method of claim 4, wherein said passing step comprises communicating the document, as processed, to an application process through a bus of a printed circuit board.

12. The method of claim 4, wherein said passing step comprises communicating the document, as processed, to a target via a communications network

13. The method of claim 12, wherein the target is a local application process.

14. The method of claim 13, wherein the target is a remote device.

15. A system for efficient processing of a document encoded in a markup language, the system comprising:

a memory;

a general purpose processor operatively connected to said memory for executing computer readable code stored in said memory; and

a special purpose processor operatively connected to said memory for processing documents encoded in the markup language;

wherein said special purpose processor is a dedicated processor.

16. The system of claim 15, wherein said special purpose processor is configured for parsing documents encoded in machine-oriented extensible markup language (mXML).

~~17. The system of claim 15, wherein said special purpose processor is configured for parsing documents encoded in machine-oriented extensible markup language (mXML).~~

18. The system of claim 15, wherein said special purpose processor is configured for transforming documents encoded in machine-oriented extensible markup language (mXML).

19. The system of claim 15, wherein said special purpose processor comprises an integrated circuit configured for processing the document.

20. The system of claim 19, further comprising:

a telecommunications device operatively connected to said general purpose processor and capable of communicating via a communications network; and

a first program stored in said memory and executable by said general purpose processor for controlling said special purpose processor to process the document, and for communicating the document, as processed, to a target.

21. The system of claim ¹⁹20, further comprising:

a second program stored in the memory and executable by said general purpose processor for recognizing the document as encoded in the markup language and responsively controlling said special purpose processor to process the document.

22. The system of claim 15, wherein said special purpose processor comprises a supplemental general purpose processor for executing computer readable code for processing the document.

23. The system of claim ²¹22, wherein said computer readable code is configured for processing the document in machine-oriented extensible markup language (mXML).

24. The system of claim ²¹22, further comprising:

a telecommunications device operatively connected to said general purpose processor and capable of communicating via a communications network; and

a first program stored in said memory and executable by said general purpose processor for controlling said special purpose processor to process the document, and for communicating the document, as processed, to a target.

- 5 ~~25~~²³ The system of claim ~~24~~²³, further comprising:
~~24~~²⁴ a second program stored in the memory and executable by said general purpose processor for recognizing the document as encoded in the markup language and responsively controlling said special purpose processor to process the document.

- ~~26~~²⁵ A printed circuit board comprising:
~~25~~²⁵ a general purpose processor for executing computer readable code stored in a memory; and
a special purpose processor operably connected to said general purpose processor for communicating therewith, said special purpose processor being configured for processing documents encoded in a markup language.

- ~~27~~²⁶ The printed circuit board of claim ~~26~~²⁵, wherein said special purpose processor
~~26~~²⁶ comprises an integrated circuit configured for processing the document.

- 20 ~~28~~²⁶ The printed circuit board of claim ~~27~~²⁶, wherein said processing includes parsing and/or
~~27~~²⁷ transforming of the document.

28 29. The printed circuit board of claim 26, wherein said special purpose processor comprises a supplemental general purpose processor.

30. The printed circuit board of claim 29, further comprising:

5 29 a memory operably connected to said supplemental general purpose processor; and
computer readable code stored in said memory and executable by said supplemental
general purpose processor for processing the document.

10
0049323 050404
0049323 050404